

Application No.: 10/692,838

Docket No.: JCLA7640

REMARKS**Present Status of Application**

The Office Action dated November 02, 2004, has rejected claims 1-3 and 7-9 under 35 USC§102(e) as being anticipated by Wu et al. (US Patent No. 6,777,709). Claims 4-6 and 10-11 were rejected under 35 USC§103(a) as being unpatentable over Wu et al. in view of Choo et al. (US Patent No. 6,797,961).

Claims 1-6 have been cancelled, while claim 7 has been amended. No new matter has been added to the application by the amendments made to the specification, claims and drawings. This Amendment is promptly filed to place the above-captioned case in condition for allowance. After entering the amendments, a notice of allowance is respectfully solicited.

Discussion for 35 USC§102 and 103 rejections

Claims 1-3 and 7-9 were rejected under 35 USC§102(e) as being anticipated by Wu et al. (US Patent No. 6,777,709). Claims 4-6 and 10-11 were rejected under 35 USC§103(a) as being unpatentable over Wu et al. in view of Choo et al. (US Patent No. 6,797,961).

The Applicant has carefully considered the remarks set forth in the Office Action.

Claims 1-6 have been cancelled.

Withdrawal of these rejections for claims 1-6 under 35 USC 102(e) and 103(a) is respectfully requested.

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Claim 7 has been amended for providing further descriptions of this invention. Applicants submit that amended independent claim 7 patently defines over the prior references for at least the reason that the cited art fails to disclose each and every feature as claimed in the present invention.

As amended, the independent claim 7 recites:

Claim 7. A capacitor structure corresponding to a pixel, comprising:

a bottom electrode, deposited on a substrate;

a dielectric layer, deposited on the bottom electrode;

a top electrode, corresponding to the bottom electrode and deposited on the dielectric layer, wherein the top electrode comprises a coupling part and a protruding part, the coupling part corresponds to the bottom electrode for forming a capacitor region, and the protruding part exceeds the capacitor region;

a passivation layer, covering the top electrode, wherein an opening formed in the passivation layer exposes the protruding part of the top electrode; and

a pixel electrode, covering the passivation layer and electrically connecting with the top electrode through the opening, wherein the pixel electrode is patterned to form an incision opening above the protruding part to expose the passivation layer.

Wu et al. merely discloses a unit cell of the thin film transistor LCD device. As shown in Fig. 2B, a lower electrode 114, a capacitor dielectric layer 124 and an upper electrode 116 form a storage capacitor, and the pixel electrode layer 118 is linked to the upper electrode 116 through an opening 120.

The Office Action considered that cutting the pixel electrode in Wu's teachings was

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comparable to the incision opening of this invention.

Applicant respectfully disagrees with this assertion.

Conversely, Wu discloses the pixel electrode 200 having a protruding section 200a for connecting with the upper electrode 116 through the opening 202, and the protruding section of the pixel electrode may be but to separate the upper electrode 116. However, the cut is clearly not above the protruding portion of the upper electrode 116.

Therefore, Wu fails to disclose the pixel electrode having an incision opening above the protruding part of the top electrode to expose the passivation layer, as recited in the independent claim. Moreover, as noted by the Office Action, Wu at least fails to teach or suggest the materials of the pixel electrode and the dielectric layer.

On the other hand, according to the structure of the present invention, the incision opening of the pixel electrode above the protruding part of the top electrode can prevent the pixel electrode from merging with the top electrode in high temperatures and therefore avoids the incision failure when laser cutting is performed.

The Office Action relied on Choo et al for teaching the materials of the pixel electrode and the dielectric layer. In fact, Choo simply relates to an x-ray detector with a storage capacitor. Although Choo discloses certain materials for the pixel structure, Choo fails to remedy the deficiencies of the above cited reference Wu.

As a result, Applicant submits that independent claim 7 patentably defines over the cited reference, either alone or in combination. Regarding the rejection under 35 USC 103(a), the Applicants submit that dependent claims be patentably distinguishable over the cited references for

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at least the same reasons as the independent claims, from which these claims respectively depend, as well as for the additional features that these claims recite.

In view of the above amendment and discussions, reconsideration and withdrawal of the 103 rejections are respectfully requested.

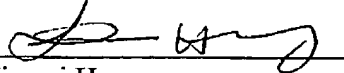
CONCLUSION

In view of the foregoing, it is believed that all pending claims are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,
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